EXCELL RAILING SYSTEMS LTD.

Tool Requirements for Railing Installation

- 10” Mitre Saw with a Carbide Triple Chip Blade
- Electric or 18-volt cordless, variable speed Drill
- Hammer Drill for concrete or stucco applications
- Electric power cords
- Drill bits - 1/8” & 5/32” & 3/16” & 1/4" (bring extras)
- Driver bits #2 & #3 - 6” long Robertson head (bring extras)
- Hack Saw
- Safety Glasses
- Ear Protection
- Tape Measure
- Pencil
- Exact-o-Knife
- Pliers or Vice Grips
- 3’ Level
- Framing Square
- String line
- Hammer
- Metal File
- Non-Marking Rubber Mallet
- Dish soap for glass installation
- Tin Snips, center cut or Yellow handle
- Caulking Gun
- Bottom Rail Clip Jig

EXCELL RAILING SYSTEMS LTD.

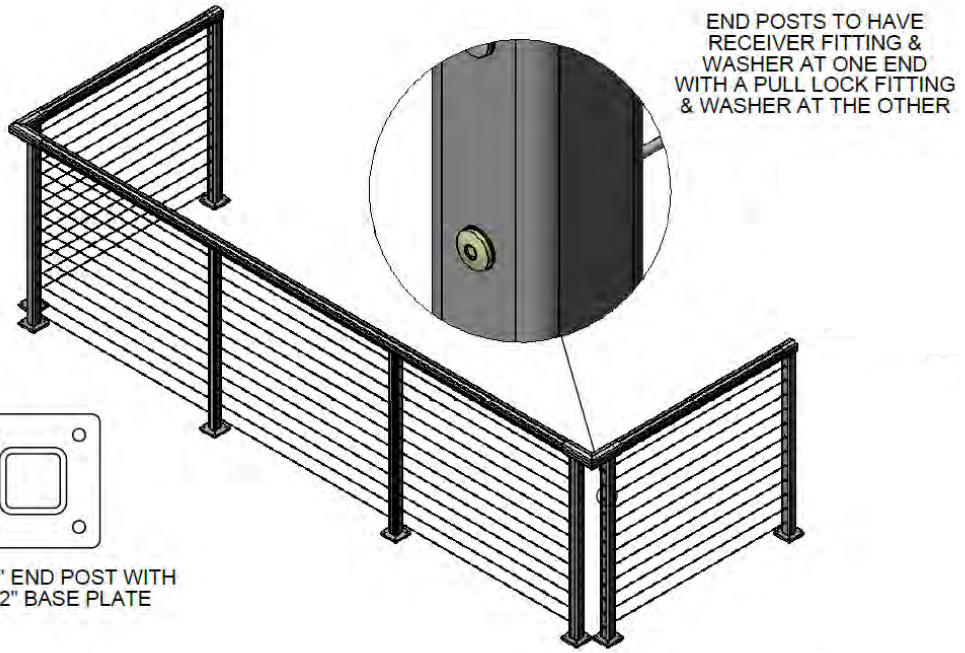
Surface Mounted Cable Railing Assembly

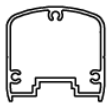
SEE FASTENER SHEET
FOR FASTENER LISTINGS

END POST TO HAVE 15/32" DRILL HOLE SIZE FOR CABLE FITTINGS

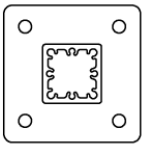
INLINE POST DRILL HOLE SIZE FOR CABLES TO BE DETERMINED BY CABLE SIZE (SEE TABLE FOR SIZES)

36" RAIL HEIGHT = 10 LINES
42" RAIL HEIGHT = 12 LINES



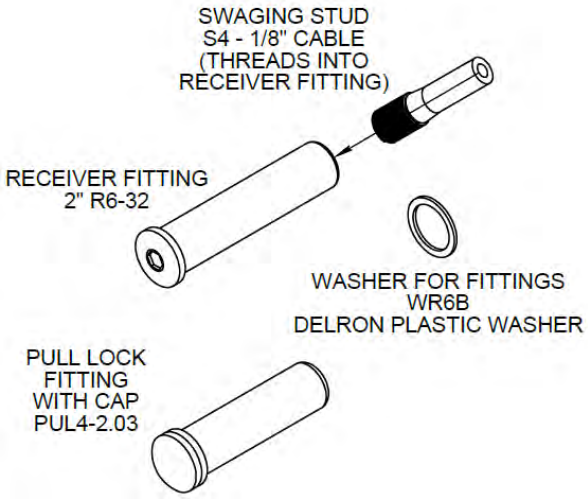


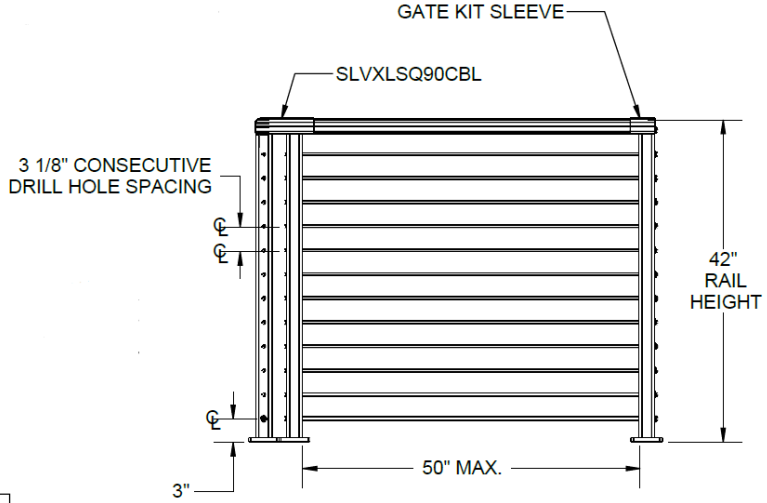
EXCELL SQUARE WELDED PICKET TOP RAIL



1.72" INLINE POST WITH 4"x4"x3/8" BASE PLATE

2"x2"x3/16" END POST WITH 4"x4"x1/2" BASE PLATE





	CABLE SIZE	DRILL HOLE SIZE
INLINE	∅1/8"	∅1/4"
TENSION	∅1/8"	∅15/32"

ULTRA-TEC®
CABLE RAILING

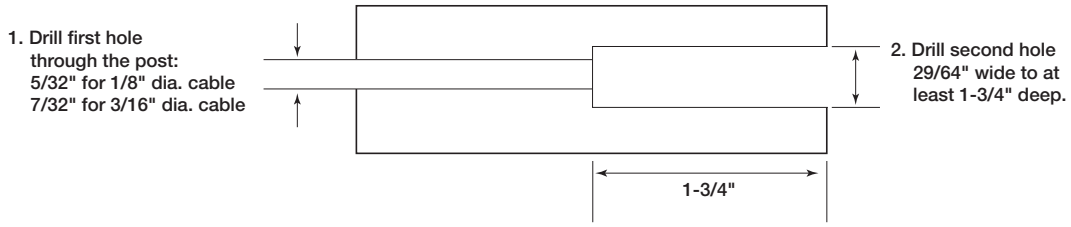
Pull-Lock Stop-End (non-tensioning) Fittings Installation Instructions

Make sure the holes are drilled properly in the posts where you will be installing your fittings.

If you are installing the fittings in a metal railing, see **Metal Railings/Hardware Mounting Holes/Boring Guide** for boring instructions.

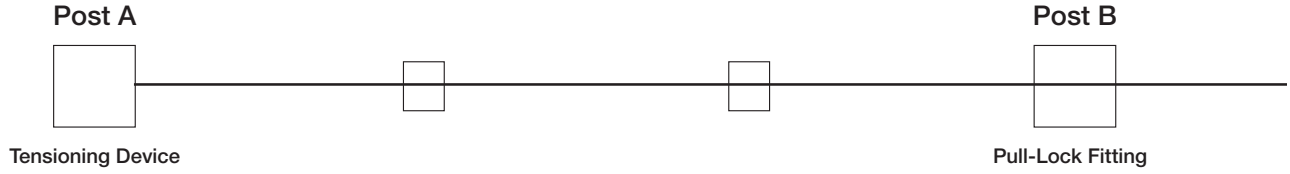
If you are using wood end posts, see "Wood Railings-Mounting Alternatives" section in this guide (pages 10-12) for hole sizes.

For wood, first drill a pilot hole through the post that is 1/16" larger than the diameter of the cable you are using. (It is best to drill the pilot hole all the way through from the inside out.) Then drill a 29/64" hole from the back side of the post at least 1-3/4" deep (deeper if you are counterboring for the over-sized washer).

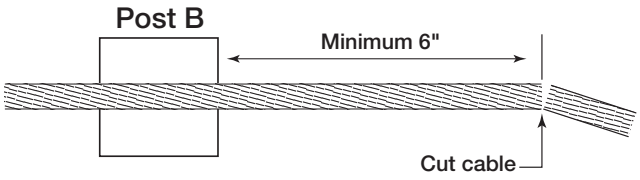


1. Following the instructions elsewhere in this guide for the tensioning device you will be installing on one end of the cable run, install the tensioning device to your end post on one end of the cable run first (Post A below).

2. Run the cable through the intermediate posts (if any) and through Post B where you will be installing the Pull-Lock fittings.

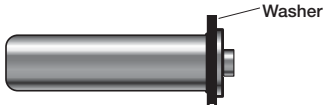


3. Cut the cable with a cable cutter, leaving enough cable extending out from the back side of the post to be able to grasp the cable firmly with your hand (6" or more).

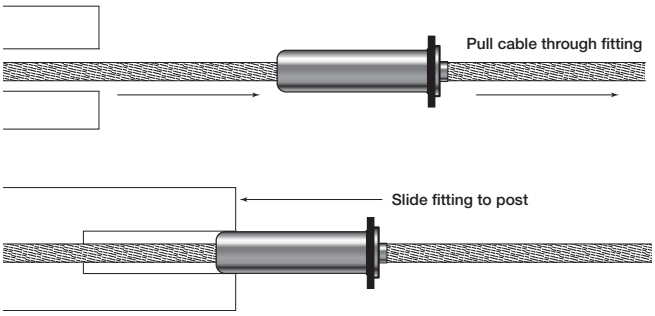


Pull-Lock Stop-End Fittings (continued)

4. Slip the washer over the body of the Pull-Lock fitting (7/16SAE washer for wood posts, black Delrin® washer for metal posts).

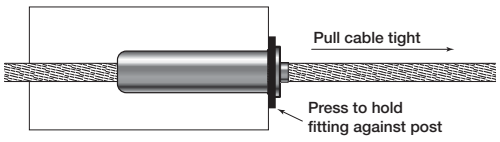


5. Push the cable into the hole in the front of the Pull-Lock fitting and pull the cable through the fitting. Twist the cable clockwise as you push it into the fitting. Then slide the fitting along the cable and up to the back side of the post. (If applicable, you will receive a PL-Key with your order. This may aid in your cable installation. Please see instructions for use of the PL-Key at the end of this section).

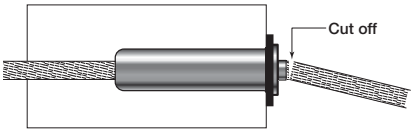


Note: If you have trouble inserting the cable into the fitting, it may be because the locking wedges have become stuck. This is not a defect! Here's what you can do to "free the wedges" —
For Pull-Lock or Push-Lock fittings for 1/8" cable, using either a PL-KEY or 1/4" diameter bolt, insert the PL-KEY or bolt into the hole and press until the wedges move freely. Perform the same operation for a 3/16" Pull-Lock or Push-Lock, except use a 16d nail or another tool with 1/8" or smaller diameter. Anything larger than what is recommended can actually get stuck inside the fitting – NOT what you want!

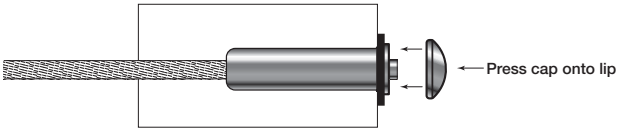
6. Hold the cable with one hand and slide the Pull-Lock fitting into the hole in the post. Press on the back of the Pull-Lock fitting to hold it securely in the post and pull the cable through the fitting until it is as tight as you can make it.



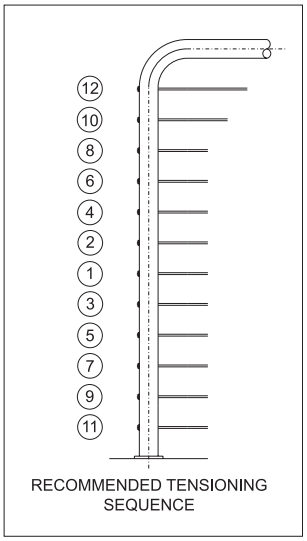
7. Cut the cable flush with the hole in the back of the Pull-Lock fitting, using a cut-off wheel (see CUT-OFF KIT in our product catalog).



8. Press the cap onto the lip of the Pull-Lock fitting.



9. Tension the cable with the tensioner installed on the end post (Post A) at the other end of the cable run, after all the fittings have been installed in both end posts. Tension all cables in sequence, beginning with the center cables, moving up and down toward the top and bottom. As you tension each cable, give it a sharp pull downward mid-span to help set the wedges, then re-tension as necessary in the same sequence. Be aware that the cable may move as much as 3/16" toward the tensioning terminal as the wedges seat.



ULTRA-TEC®
CABLE RAILING

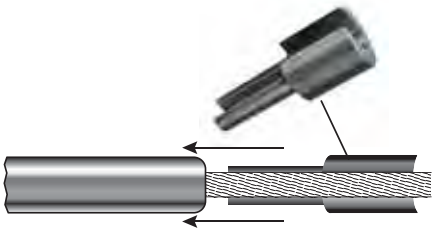
PL-Key Instructions

For 1/8" Push- and Pull-Locks, a release key is available. The key opens the spring-loaded jaws that grip the cable prior to tensioning.

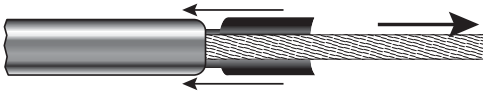
The PL-Key is primarily used when you want to remove the cable from the Push/Pull-Lock during the installation and cable-trimming process. Because it opens the spring-loaded jaws, it also helps you insert the cable into the Push/Pull-Lock if you're having trouble with that step.

While the PL-Key is very helpful prior to tensioning the cable, it is not effective once the cable has been tensioned. The jaws set into the cable and the Push/Pull-Lock's tamper-resistant design prevents you (or anyone else) from removing the cable at this point. More importantly, even if you are able to remove tensioned cable from the Push/Pull-Lock, the fitting's locking mechanism is spent and cannot be re-used.

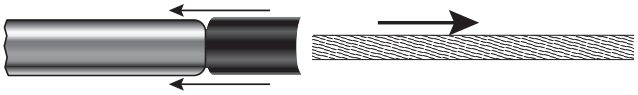
1. Slide the groove of the PL-Key along the cable until the cable is completely inside the groove. Carefully insert the PL-Key into the Push/Pull-Lock opening.



2. Push down until the key bottoms out. You will feel resistance from the spring-loaded jaws as you do so.



3. Now you may safely remove the cable from the Push/Pull-Lock without damaging the jaw mechanism.



4. Remove the PL-Key and the jaws will reset to their original position, ready to accept and grip the cable again.

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